

## FLUORESCENT LAMP DRIVER SYSTEM

### ABSTRACT OF THE DISCLOSURE

A lamp driver system is provided that facilitates improved efficiency and brightness control for an optical display system. The lamp driver system provides this improved efficiency and brightness control through the precise control of the plasma in the lamp. The lamp driver system excites the electrons in the plasma such that their obtained velocity is optimized to increase the probability of collision with the mercury atoms in the lamp. Collisions with mercury atoms release ultra-violet photons, which in turn excites the phosphor coating in the lamp. The resulting relaxation of the phosphor atoms releases photons in the visible spectrum, thus providing light with the required frequency components to illuminate the display.